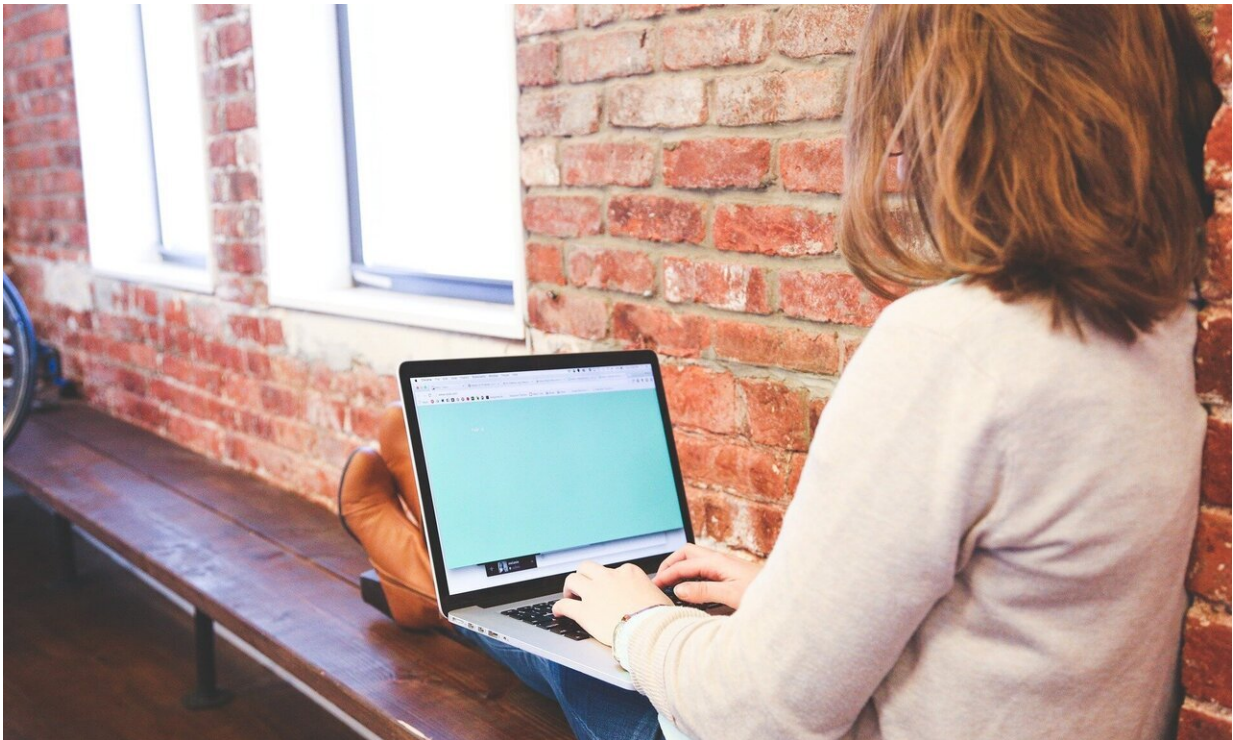


Gamification can give dental and medical education a boost

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Introducing gamification to medical and dental education can boost student motivation and lead to better learning outcomes, a new study from the University of Eastern Finland shows. Using their own mobile devices, students on a histology course took trivia quizzes on the course topics focusing on human cells and tissues. According to students, this

promoted interaction and created a positive learning atmosphere. The findings were published in *BMC Medical Education*.

Advances in [digital technology](#) have opened up new avenues for [medical education](#), and technology can also be used to bring more interaction to teaching.

Histology education focuses on the human body at the cellular and tissue levels. In 2016, the University of Eastern Finland reformed its histology curriculum and introduced a [student](#)-centred learning platform that is based on virtual microscopy, allowing students to examine whole-slide digitised tissue samples online. In addition, the classrooms were equipped with large touch screens, making it possible for students to work in groups when analysing virtual tissue samples.

Recently, gamification was introduced to the histology course through Kahoot, a game-based quiz platform freely available on the internet. Kahoot enables professors to create trivia quizzes on topics covered on the course, and students can take the quizzes on their mobile devices. Answers are submitted anonymously and students get instant feedback on them. The use of trivia quizzes in histology education is geared towards increased interaction, better remembering of things taught, and promoting general interest in the topic. Kahoot is a relatively rarely used tool in medical education.

The newly published study sought to investigate whether taking digital trivia quizzes would have an impact on student grades in the histology course. Students' grades were compared against the grades of students from the previous year, when the course was implemented according to the same structure, but without Kahoot. Students also completed a survey that focused on their views of gamification in education.

The majority of students felt that Kahoot quizzes enhanced their

motivation to learn and made it easier to understand difficult concepts. The opportunity to discuss the results with professors was also considered important. According to students, anonymous quizzes made it possible to test one's own learning in a relaxed manner. In addition, anonymous quizzes fostered collaboration, and students also tended to perform better when working in groups rather than alone. Since introducing gamification to histology [education](#), an increasing number of students have got a good grade in their final exam, although there hasn't been a significant change in the mean [grades](#).

More than 200 first-year students of medicine and dentistry participated in the [histology](#) course in both years. Roughly 160 students responded to the survey.

More information: Szabolcs Felszeghy et al, Using online game-based platforms to improve student performance and engagement in histology teaching, *BMC Medical Education* (2019). [DOI: 10.1186/s12909-019-1701-0](#)

Provided by University of Eastern Finland

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